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10/830,218	04/23/2004	Parthasarathy Ranganathan	200403364-1	9362
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HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			EXAMINER LIOU, ERIC	
			ART UNIT 3628	PAPER NUMBER
			NOTIFICATION DATE 06/02/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM

mkraft@hp.com

ipa.mail@hp.com

**Office Action Summary****Application No.**

10/830,218

**Applicant(s)**RANGANATHAN,  
PARTHASARATHY**Examiner**

Eric Liou

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/23/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant argues claims 3-8 and 26 are definite under 35 U.S.C. §112 second paragraph. Applicant submits that it is clear that “some” refers to all the metrics that directly follow, namely, a usage metric, a power consumption metric, a lifetime metric, and the cost metric. However, it is unclear how many metrics are included in the claim. Thus, the Examiner maintains that claims 3-8 and 26 are indefinite.
2. Applicant argues the cost metric disclosed in U.S. Publication No. 2003/0156074 was derived from the inventor, Parthasarathy Ranganathan, as noted in the 37 CFR 1.132 declaration. The Examiner has brought in Nakamura to teach the cost metric limitation of Applicant's invention. See art rejection below.
3. Regarding the 35 U.S.C. § 103 rejection, Applicant cites numerous sections of *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, 82 USPQ2d 1385 (2007) and the MPEP. However, Applicant fails to specifically point out why or how the 35 U.S.C. § 103 rejection is deficient. Thus, the Examiner does not have the grounds to make a response.
4. Applicant traverses the Official Notice taken with respect to claims 8 and 18 by stating ranking different options based on a weighting algorithm giving weights to metrics for controlling a display is not believed to be well known at the time of the invention. It is noted that Official Notice was only taken that it was old and well known in the art at the time of the invention to rank different options based on an algorithm giving weights to a plurality of metrics. Moreover, Applicant has simply stated that it is believed that the limitation for which Official Notice was taken is not believed to be well known at the time of the invention. In order to properly traverse an Official Notice, Applicant must specifically point out the supposed errors in

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the Examiner's reasoning, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. The Examiner notes the following discussion of Official Notice taken from the MPEP:

To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. See 37 CFR 1.111(b). See also *Chevenard*, 139 F.2d at 713, 60 USPQ at 241 ("[I]n the absence of any demand by appellant for the examiner to produce authority for his statement, we will not consider this contention."). A general allegation that the claims define a patentable invention without any reference to the examiner's assertion of official notice would be inadequate. If applicant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained. See 37 CFR 1.104(c)(2). See also *Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697 ("[T]he Board [or examiner] must point to some concrete evidence in the record in support of these findings" to satisfy the substantial evidence test). If the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2). If applicant does not traverse the examiner's assertion of official notice or applicant's traverse is not adequate, the examiner should clearly indicate in the next Office action that the common knowledge or well-known in the art statement is taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate. If the traverse was inadequate, the examiner should include an explanation as to why it was inadequate. (MPEP § 2144.03(C))

5. Moreover, since Applicant has not specifically pointed out errors in the Examiner's action, the limitation for which Official Notice was taken in claims 8 and 18 is considered to be admitted prior art because Applicant has not proffered an adequate traversal.

### ***Drawings***

6. The drawings filed on 4/23/04 are accepted.

### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 3-8, 23, and 26 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
9. Regarding claim 3, the term "some" in line 4 is indefinite. It is unclear what the number of metrics included is from the term.
10. Claim 23 recites the limitation, "means for evaluating each of the display configurations using the plurality of metrics." Independent claim 20 recites that there is "at least a cost metric." Claim 23 is indefinite when there is only a cost metric.
11. Regarding claim 26, the term "some" in line 4 is indefinite. It is unclear what the number of metrics included is from the term. In addition, the claim recites the limitation, "evaluating each of the configurations...." This language suggests that there are multiple configurations. However, independent claim 24 recites only one configuration.

#### ***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-7, 9-10, 13-17, and 19-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ranganathan et al., U.S. Publication No 2003/0156074 in view of Nakamura, U.S. Publication No. 2003/0043137.

14. **As per claims 1 and 24**, Ranganathan teaches a method and computer software for: determining a metric associated with displaying information from at least one source (Ranganathan: paragraphs 0066; 0071); and

determining a display configuration for displaying the information from the at least one source based at least on the metric (Ranganathan: paragraphs 0014-0016; 0066; 0068).

15. Ranganathan does not teach a cost metric.

16. Nakamura teaches a method for calibrating the luminance of a device display and reducing the power consumption with various simple and low-cost configurations (Nakamura: paragraphs 0013; 0030). Thus, the configuration cost based on the amount of power consumed is the cost metric.

17. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method and computer software of Ranganathan to have included a cost metric as taught by Nakamura for the advantage of determining the most efficient configuration that minimizes power consumption.

18. **As per claims 2 and 25**, Ranganathan further teaches wherein determining a display configuration comprises: determining a plurality of display configurations for displaying the information from the at least one source (Ranganathan: paragraphs 0014-0016; 0056; 0057, "configured in a hierarchical order"; 0058-0062); evaluating each of the display configurations based at least on the metric (Ranganathan: paragraphs 0066; 0068); and selecting one of the

plurality of display configurations based on the evaluation (Ranganathan: Figs. 1B-1E; paragraph 0057-0058; 0077).

19. Ranganathan does not teach a cost metric.

20. Nakamura teaches a method for calibrating the luminance of a device display and reducing the power consumption with various simple and low-cost configurations (Nakamura: paragraphs 0013; 0030).

21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method and computer software of Ranganathan in view of Nakamura to have included a cost metric as taught by Nakamura for the advantage of determining the most efficient configuration that minimizes power consumption.

22. **As per claims 3 and 26**, Ranganathan further teaches wherein evaluating each of the display configurations comprises: evaluating each of the configurations based on a plurality of metrics, the plurality of metrics including at least some of a usage metric, a power consumption metric, and a lifetime metric (Ranganathan: paragraphs 0066; 0068; 0071).

23. **As per claim 4**, Ranganathan further teaches determining the usage metric using a usage model, wherein the usage model includes an analysis of usage patterns for a display (Ranganathan: paragraphs 0015, “usage considerations”; 0020, “energy model”; 0035; 0038; 0042-0043; 0068).

24. **As per claim 5**, Ranganathan further teaches determining the power consumption metric using a power consumption model, wherein the power consumption model includes an analysis of power consumption data for a display (Ranganathan: paragraphs 0008; 0020, “energy model”; 0066; 0068).

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25. **As per claim 6**, Ranganathan further teaches determining the lifetime metric using a lifetime model, wherein the lifetime model includes an analysis of lifetime data for a display (Ranganathan: paragraphs 0020, “energy model”; 0068; 0071).

26. **As per claim 7**, Ranganathan further teaches determining the metric using a model (Ranganathan: 0020; 0068; 0081-0082). Ranganathan does not teach a cost metric and an analysis of predetermined factors associated with using the display and a relation of the factors to monetary costs.

Nakamura teaches a method for calibrating the luminance of a device display and reducing the power consumption with various simple and low-cost configurations (Nakamura: paragraphs 0013; 0030; A voltage analysis of a configuration is performed.). The configuration cost based on the amount of power consumed is the cost metric. One skilled in the art would recognize that the cost for various configurations is associated with monetary costs. The applied reference has been interpreted and applied assuming basic knowledge of one of ordinary skill in the art. According to *in re Jacoby*, 135 USPQ 317 (CCPA 1962), the skilled artisan is presumed to know something more about the art than only what is disclosed in the applied references. In *In re Bode*, 193 USPQ 12 (CCPA 1977), every reference relies to some extent on knowledge of persons skilled in the art to complement that, which is disclosed therein.

27. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Ranganathan in view of Nakamura to have included a cost metric and an analysis of predetermined factors associated with using the display and a relation of the factors to monetary costs as taught by Nakamura for the advantage determining the most efficient configuration that minimizes power consumption.



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28. **As per claim 9**, Ranganathan further teaches wherein evaluating each of the configurations comprises: evaluating each of the configurations based at least on the metric and source display settings received from the at least one source (Ranganathan: paragraphs 0066; 0068).

29. Ranganathan does not teach a cost metric.

30. Nakamura teaches a method for calibrating the luminance of a device display and reducing the power consumption with various simple and low-cost configurations (Nakamura: paragraphs 0013; 0030).

31. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Ranganathan in view of Nakamura to have included a cost metric as taught by Nakamura for the advantage of determining the most efficient configuration that minimizes power consumption.

32. **As per claim 10**, Ranganathan further teaches generating the display configuration on a display (Ranganathan: Figs. 1B-1E; paragraphs 0057-0058; 0077).

33. **As per claim 13**, Ranganathan does not teach wherein the cost metric is associated with at least one of a cost of using a display.

34. Nakamura teaches wherein the cost metric is associated with at least one of a cost of using a display (Nakamura: paragraphs 0013; 0030; see low-cost configurations for display).

35. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Ranganathan in view of Nakamura to have included wherein the cost metric is associated with at least one of a cost of using a display as taught by Nakamura for the advantage of determining the most efficient configuration that minimizes power consumption.

36. **As per claim 14**, Ranganathan further teaches wherein the display configuration comprises a visual representation of the information from the at least one source provided on a display (Ranganathan: paragraphs 0014-0016).

37. **As per claim 15**, Ranganathan teaches a method of displaying information on a display, the method comprising:

determining a plurality of display configurations for displaying information from at least one source using at least a metric (Ranganathan: paragraphs 0014-0016; 0056; 0057, “configured in a hierarchical order”; 0058-0062; 0066; 0071);

evaluating each of the display configurations based at least on the metric (Ranganathan: paragraphs 0066; 0068);

selecting one of the plurality of display configurations based on the evaluation (Ranganathan: Figs. 1B-1E; paragraph 0057-0058; 0077); and

providing the display configuration on the display (Ranganathan: Figs. 1B-1E and 2B; paragraphs 0057-0058; 0077).

38. Ranganathan does not teach a cost metric.

39. Nakamura teaches a method for calibrating the luminance of a device display and reducing the power consumption with various simple and low-cost configurations (Nakamura: paragraphs 0013; 0030).

40. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Ranganathan to have included a cost metric as taught by Nakamura for the advantage of determining the most efficient configuration that minimizes power consumption.

41. **As per claim 16**, Ranganathan does not teach determining the cost metric, wherein the cost metric is related to one of operational costs and cost of using the display.

42. Nakamura teaches determining the cost metric, wherein the cost metric is related to one of operational costs and cost of using the display (Nakamura: paragraphs 0013; 0030).

43. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Ranganathan in view of Nakamura to have included determining the cost metric, wherein the cost metric is related to one of operational costs and cost of using the display as taught by Nakamura for the advantage of determining the most efficient configuration that minimizes power consumption.

44. **As per claim 17**, Ranganathan further teaches determining a plurality of display configurations for displaying information from least one source using a plurality of metrics, the plurality of metrics including at least one of a usage metric, a power consumption metric, and a lifetime metric (Ranganathan: paragraphs 0066; 0068; 0071); and the step of evaluating each of the display configurations comprises evaluating each of the display configurations based on the plurality of metrics (Ranganathan: paragraphs 0066; 0068; 0071).

45. Ranganathan does not teach a cost metric.

46. Nakamura teaches a method for calibrating the luminance of a device display and reducing the power consumption with various simple and low-cost configurations (Nakamura: paragraphs 0013; 0030).

47. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Ranganathan in view of Nakamura to have included a cost metric as taught by Nakamura for the advantage of determining the most efficient configuration that minimizes power consumption.

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48. **As per claim 19**, Ranganathan further teaches wherein the display configuration comprises a visual representation of the information from the at least one source provided on a display (Ranganathan: paragraphs 0014-0016).

49. **As per claim 20**, Ranganathan teaches an apparatus comprising:

means for receiving information from at least one source (Ranganathan: paragraphs 0014-0015; 0066; 0071);

means for determining a plurality of display configurations for displaying information from the at least one source using at least a metric (Ranganathan: paragraphs 0014-0016; 0056; 0057, “configured in a hierarchical order”; 0058-0062; 0066; 0071); and

means for selecting one of the plurality of display configurations based at least on one of the metrics (Ranganathan: Figs. 1B-1E; paragraph 0014-0015; 0057-0058; 0066; 0077).

50. Ranganathan does not teach a cost metric.

51. Nakamura teaches a method for calibrating the luminance of a device display and reducing the power consumption with various simple and low-cost configurations (Nakamura: paragraphs 0013; 0030). Thus, the configuration cost based on the amount of power consumed is the cost metric.

52. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Ranganathan to have included a cost metric as taught by Nakamura for the advantage of determining the most efficient configuration that minimizes power consumption.

53. **As per claim 21**, Ranganathan further teaches means for displaying the information from the at least one source in the selected display configuration (Ranganathan: Figs. 1 and 2B).

54. **As per claim 22**, Ranganathan further teaches means for selecting one of the plurality of display configurations based on a plurality of metrics (Ranganathan: Figs. 1B-1E; paragraph 0057-0058; 0066; 0071). Ranganathan does not teach a cost metric.

55. Nakamura teaches a method for calibrating the luminance of a device display and reducing the power consumption with various simple and low-cost configurations (Nakamura: paragraphs 0013; 0030). Thus, the configuration cost based on the amount of power consumed is the cost metric.

56. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Ranganathan to have included a cost metric as taught by Nakamura for the advantage of determining the most efficient configuration that minimizes power consumption.

57. **As per claim 23**, Ranganathan further teaches means for evaluating each of the display configurations using the plurality of metrics (Ranganathan: paragraphs 0014-0015; 0066; 0071).

58. **As per claim 27**, Ranganathan teaches a computing system comprising:

at least one interface operable to receive information from at least one source  
(Ranganathan: Figs. 1 and 2B);

a display operable to display a display configuration of the information, the display configuration being a visual representation of the information on the display (Ranganathan: Figs. 1 and 2B; paragraphs 0014-0016; 0057; 0065-0066) and

a processor operable to select the display configuration from a plurality of possible display configurations of the information based on a metric associated with displaying the display configuration (Ranganathan: Figs. 1B-1E; paragraphs 0014-0016; 0056; 0057, "configured in a hierarchical order"; 0058-0062; 0077).

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59. Ranganathan does not teach a cost metric.

60. Nakamura teaches a method for calibrating the luminance of a device display and reducing the power consumption with various simple and low-cost configurations (Nakamura: paragraphs 0013; 0030). Thus, the configuration cost based on the amount of power consumed is the cost metric.

61. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the computing system of Ranganathan to have included a cost metric as taught by Nakamura for the advantage of determining the most efficient configuration that minimizes power consumption.

62. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ranganathan et al., U.S. Publication No 2003/0156074 in view of Nakamura, U.S. Publication No. 2003/0043137.

63. **As per claims 8 and 18**, Ranganathan further teaches evaluating each of the configurations as described above. Ranganathan does not teach ranking each of the display configurations based on an algorithm weighting the plurality of metrics for each of the display configurations. However, Official Notice is taken that it was old and well known in the art at the time of the invention to rank different options based on an algorithm giving weights to a plurality of metrics. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Ranganathan to have included the teachings of Official Notice because ranking different options based on an algorithm giving weights to a plurality metrics presents an individual with the most desirable option based on predetermined criteria.

64. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ranganathan et al., U.S. Publication No 2003/0156074 in view of Nakamura, U.S. Publication No. 2003/0043137 and further in view of Schleicher et al., U.S. Publication No. 2002/0138744.
65. **As per claim 11**, Ranganathan further teaches receiving information from a source (Ranganathan: paragraphs 0015; 0066; 0071); and the step of generating the display configuration comprises generating the display configuration, wherein the display configuration includes a plurality of windows, each window being associated with the source (Ranganathan: Fig. 2B; paragraphs 0062; 0065-0066)
66. Ranganathan in view of Nakamura does not teach receiving information from a plurality of sources.
67. Schleicher teaches a peer to peer file delivery network that allows the transfer of files from a plurality of computers (Schleicher: Fig. 1A; paragraphs 0011; 0018).
68. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Ranganathan in view of Nakamura to have included receiving information from a plurality of sources as taught by Schleicher for the advantage of providing a network that distributes resources and content in an efficient manner (Schleicher: paragraph 0007).
69. **As per claim 12**, Ranganathan further teaches determining a metric associated with displaying information from at least one source comprises determining a metric for each of the plurality of windows (Ranganathan: paragraphs 0066; 0071).
70. Ranganathan does not teach a cost metric.
71. Nakamura teaches a method for calibrating the luminance of a device display and reducing the power consumption with various simple and low-cost configurations (Nakamura:

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paragraphs 0013; 0030). Thus, the configuration cost based on the amount of power consumed is the cost metric.

72. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Ranganathan in view of Nakamura and further in view of Schleicher to have included a cost metric as taught by Nakamura for the advantage of determining the most efficient configuration that minimizes power consumption.

### *Conclusion*

73. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Hunter, U.S. Patent No. 7,036,025
- b. Springer, U.S. Patent No. 5,936,608
- c. Reinhardt, U.S. Patent No. 5,598,565

The Examiner has cited particular portions of the references as applied to the claims above for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that the Applicant, in preparing the responses, fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Liou whose telephone number is (571)270-1359. The examiner can normally be reached on Monday - Friday, 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric Liou/  
Examiner, Art Unit 3628

/JOHN W HAYES/  
Supervisory Patent Examiner, Art Unit 3628